



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

OCT 15 2007

October 2, 2007

Joseph Heckman  
Technical Services Manager  
Energy Solutions  
423 West 300 South, Suite 200  
Salt Lake City, UT 84101

SUBJECT: CLARIFICATION OF TERM "COMMINGLED" IN 10 CFR 71.15(c)

Dear Mr. Heckman:

This letter responds to your letter dated March 27, 2007, in which you requested clarification of the term "commingled" that appears in 10 CFR 71.15(c). I apologize for the delay in response due to the press of casework and other business.

The term "commingled," is not found in **§71.4 Definitions**, and therefore has no specific definition for the purpose of Part 71. In typical usage, commingled means blended, combined; or mixed together.

Section **71.15 Exemptions from classification as fissile material** provides that fissile material meeting the requirements of at least one of the paragraphs (a) through (f) are exempt from classification as fissile material and from the fissile material package standards of 71.55 and 71.59, but are subject to all other provisions except as noted. Regarding the question at hand, subparagraph (c)(1) states, in part, that:

"... low concentrations of solid fissile material commingled with solid nonfissile material, provided that:

- (i) There is at least 2000 grams of solid material nonfissile material for every gram of fissile material, and
- (ii) There is no more than 180 grams of fissile material distributed within 360 kg of contiguous nonfissile material."

This subparagraph provides an exemption for certain fissile material when mixed with certain non-fissile material, and specifies the parameter and value limits for the exemption.

Based on this subparagraph, examples of exempt fissile material could include objects contaminated with low concentrations of solid fissile material that are commingled with nonfissile objects or material, or contents that are slightly contaminated throughout, provided the fissile material package contents meet the specifications of 71.15(c)(1).

If you have questions on this subject please contact Andrew Barto on (301) 492-3336.

Sincerely,

A handwritten signature in black ink, appearing to read "E. Brach", followed by a small "fr" or similar mark.

E. William Brach, Director  
Division of Spent Fuel Storage  
and Transportation  
Office of Nuclear Material Safety  
and Safeguards

cc: R. Boyle, USDOT